

WHAT IS CLAIMED IS:

1. A digital switch comprising:
a switching fabric; and
a plurality of blades coupled to the switching fabric via serial pipes;
wherein each blade outputs serial data streams with in-band control information in multiple stripes to the switching fabric, and
wherein the switching fabric uses the in-band control information to control traffic flow of data in the multiple stripes through the switching fabric.
2. The digital switch of claim 1, wherein the switching fabric includes a plurality of cross points corresponding to the multiple stripes.
3. The digital switch of claim 2, wherein each cross point includes a plurality of port slices coupled to the plurality of blades.
4. The digital switch of claim 2, wherein the multiple stripes comprise five stripes, and the serial data streams comprise five serial data streams of wide striped cells carrying packets of data.
5. The digital switch of claim 4, wherein the wide striped cells include start-of-cell in-band control information in each of the stripes.
6. The digital switch of claim 1, wherein the switching fabric determines a destination blade for data in the data streams using the in-band control information.
7. The digital switch of claim 1, wherein the serial data streams output by each blade represent an aggregation of input serial data streams provided through physical ports to a respective blade.
8. The digital switch of claim 1, wherein the cross points operate independently of each other based on the in-band control information.

9. The digital switch of claim 1, wherein the multiple stripes all contain the same in-band control information.

10. A digital switch comprising:
a switching fabric including a plurality of cross points; and
a plurality of blades each providing serial data streams to the cross points,

wherein the serial data streams are formed into multiple stripes corresponding to the cross points and include in-band control information in each stripe, and

wherein the cross points route the multiple stripes independently of each other based on the in-band control information.

11. The digital switch of claim 10, wherein the serial data streams represent an aggregation of input data streams provided through ports to a respective blade.

12. The digital switch of claim 9, wherein the multiple stripes comprise five stripes, and the serial data streams comprise five serial data streams of wide striped cells carrying packets of data.

13. The digital switch of claim 10, wherein the plurality of cross points comprise five cross points, and each blade has five serial links coupled to a respective five cross point.

14. The digital switch of claim 10, wherein the multiple stripes all contain the same in-band control information.

15. A digital switch comprising:
a switching fabric; and
a plurality of blades coupled to the switching fabric via serial pipes;
wherein each blade outputs serial data streams with in-band control information and payload data in multiple stripes, and

wherein the switching fabric switches data streams in the multiple stripes based on the in-band control information.

16. The digital switch of claim 15, wherein each blade generates wide striped cells having blocks that extend across the multiple stripes, each block having subblocks associated with a respective multiple stripe.

17. The digital switch of claim 16, wherein the wide striped cells include start-of-cell in-band control information in each stripe.

18. The digital switch of claim 14, wherein each wide striped cell is encoded with the in-band control information for each multiple stripe.

19. The digital switch of claim 14, wherein each blade outputs the subblocks across a respective set of serial links to the switching fabric such that the subblocks are sent on serial links associated with corresponding stripes.

20. The digital switch of claim 19, wherein the subblocks include control and state information relating to traffic flow conditions in the multiple stripes.

21. The digital switch of claim 19, wherein the subblocks include control and state information relating to traffic flow conditions in the stripes.

22. The digital switch of claim 13, the serial data streams representing an aggregation of input serial data streams provided through ports to a respective blade

23. The digital switch of claim 15, wherein the plurality of blades comprises eight blades, and the switching fabric has a switching capacity of at least approximately 800 gigabits per second.

24. The digital switch of claim 15, wherein the multiple stripes comprise five stripes, and the switching fabric comprises five cross points corresponding to the five stripes.

25. The digital switch of claim 15, wherein the switching fabric determines a destination blade for data in the multiple stripes using the in-band control information.

26. The digital switch of claim 15, wherein the multiple stripes all contain the same in-band control information.